



**ENVIRONMENTAL SERVICES DEPARTMENT**  
**AIR POLLUTION CONTROL**  
1001 North Central Avenue  
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**GUIDELINES FOR REMEDIATION OF CONTAMINATED SOIL**

Persons planning to remediate contaminated soil need to comply with Maricopa County Air Pollution Control Regulations, Rules 200, 220, 241, 320, 370, and any other applicable requirements.

Rules 200, 210, and 220 require that persons involved in soil remediation obtain an air quality permit prior to beginning remediation unless specifically exempted by regulation. The following soil remediation sources are considered de minimis and, therefore, are exempt from air quality permitting requirements:

1. Diesel contaminated soil where no heat is applied [Rule 200, Section 303.3 c. (7) (a)].
2. Sites whose emissions before control are less than three pounds of volatile organic compounds (VOCs) and particulate matter with an aerodynamic diameter smaller than or equal to 10 microns (PM<sub>10</sub>) and less than 5.5 pounds of any other regulated air pollutant during any day [Rule 200, Section 303.3 c. (7) (j)].
3. Sites involving only organic liquids which have a true vapor pressure of 1.5 psia or less under any actual conditions which may exist during the project.

Rule 241 requires persons involved in contaminated soil remediation to install best available control technology (BACT) for sites emitting VOCs in excess of 150 pounds per day or greater than 25 tons per year. For sites emitting VOCs up to 150 pounds per day or 25 tons per year, Rule 241 requires the use of reasonably available control technology (RACT).

Rule 320 requires that where means are available to effectively reduce the contribution to air pollution from material evaporation, leakage, or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.

The application for an air quality permit should include: a) scope-of-work narrative. Included in the narrative shall be the methodology used to assess the problem, the findings of the assessment; and a summary of the remedial action plan. b) process flow diagram, c) equipment, d) air emissions, e) controls, f) work practices to be used to reduce air pollution, and g) and Operations and Maintenance plan for control devices if any.

For a remediation site, Maricopa County Air Pollution Control Regulations will currently allow:

1. Up to three pounds per day of VOCs to be emitted into the atmosphere from soil remediation projects if no air pollution controls are being utilized.  
or
2. VOC emissions into the atmosphere greater than three pounds per day may be permitted if an air pollution control device is used which has a control efficiency for VOCs of at least 90% by weight.  
or
3. Aeration of the soil (land farming) in cases where no more than 100 yd<sup>3</sup> of contaminated soil are being remediated. This is not to be used as a way to treat large sites in small portions to avoid permitting procedures.

Analysis of soil samples for total volatile organic compounds (VOCs) shall be performed in accordance with applicable Environmental Protection Agency (EPA) test methods (modified Method 8015, modified Method 418.1, Method 8020).

If the Permittee can demonstrate the uncontrolled VOC emissions are consistently below 3 lb/day, the Permittee is allowed to bypass the control device. A follow-up test shall then be conducted once every 30 days to verify the VOC emissions rate is below 3 lb/day from the system as it is normally operated. When no further remediation is needed, the Maricopa County Air Quality Division shall be notified of the site closure.

It is the responsibility of the property owner or representative to assure that appropriate permits from the Arizona Department of Environmental Quality and other agencies have been obtained.

It is the responsibility of the property owner or representative to assure that no gasoline contaminated soil is transported to another site in Maricopa County by a contractor or operator unless that site is permitted by Maricopa County to receive gasoline contaminated soil.

A separate earth moving permit is required for earth moving operations that disturb a total surface area of 0.10 acre or more [Rule 200, Section 305].

No untreated soil will be excavated or stockpiled if the total quantity exceeds 100 yd<sup>3</sup> and it contains VOCs with a true vapor pressure greater than 1.5 psia unless:

1. A soil vapor suppressant is applied and maintained in an appropriate manner to control VOC emissions into the atmosphere,  
or
2. Contaminated soil which has been excavated is covered with a layer of uncontaminated soil no less than one foot deep,  
and
3. The untreated soil is remediated within 30 days of excavation.

To determine the effectiveness of the above procedures, the treated or covered soil shall register 50 parts per million by volume (ppmv) or less of VOCs when measured up to three inches from the surface with an organic vapor analyzer (calibrated for hexane) or equivalent method approved by the Air Pollution Control Officer.

Site testing is allowed for up to 8 hours duration without a permit. If the VOC emissions are less than three pounds per day, no control equipment will be required. Should the VOC emissions be over three pounds per day, a control device will be used as an abatement to reduce the emissions by 90%.

Application forms for air quality permits are available from:

Maricopa County Environmental Services Department  
Air Pollution Control  
1001 North Central Avenue Suite 150  
Phoenix, AZ 85013